Work Order I January-07-14 3:02:			*110	744*							Page 1
Revision ID:	35-25	A	Accept	*N900	<b>040</b>	100	)* ·	Setup S	tart Stop		S1* S2*
Start Date: 1/07, Required Date: 1/07, Reference:	- •	• •		Cust Item I Customer:	D:						
Approvals: Pro	ocess Plan: MLJ	•	Tooling: SPC (Y/N):		ate:		I	-	start Stop		R1* R2*
Sequence ID/ Work Center ID	Operation Description		Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty		Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr										
*100 *100* Waterjet FLOW CNC Waterjet	FLOW WATER JET  Memo 1-Cut as pe Deburr if n	er Dwg D3535 - Dwg Rev:_ lecessary	0.00  0.00  Prog Rev:	2-			12	_0			<u>Ae</u> 14.01.3
110 *110* QC Quality Control	QC2- Inspect parts off	machine FAI/FAIB	0.00				_12	<u> </u>	<i>.</i> 	·	<u> de</u> 14.01.3
120 *1 20* QC	QC8- Inspect parts - se	cond check	0.00 PAS 0.00 PAS 0.00 PAS	3)			Q				:

Quality Control

DQA:			Date:										TRAGE
04.6			D-4			WORK ORDER NON-	-CC	ONFO	RMANCE / UP		(l. Od		AEROSPACE
QA Closed:			Date:					,	<u> </u>		ork Order up	date only	
Work Orde	er:					DISPOSITION				AGAINST D	EPARTMENT	/PROCESS	
	•		<del></del>			Rework	ıl		Skid-tube	Crosstube	٦	Water Jet	Engineering
Part N	lo.					Scrap			Machining	Small Fab	Pro	d. Eng. Coor.	Quality
	•					Use-as-is			moforming	Finishing	<b>⊣</b>	re/Packaging	Other
NCR I	۱o.					Suspected Unapproved			Large Fab	Composite	]	Supplier	
Root					Desci	ription of work order update		nitial	Acti	on	Sign &	,	
Cause		Date	Step	Qty		or non-conformance	Ch	ief Eng	Descri	ption	Date	Verification	QC Inspector
Design													
Doc/Data													
Equip/Tooling													
Handling/Pre													
Material													
Operator			1				1						
Offset/Setup							l						
Process					· ·								
Supplier													
Training			:										
Transport													
Unapproved					<u> </u>		<u> </u>						
							FA	ULT CA	TEGORY				
Landi		ı				General	_	,		_	_	_	
		Bending				Bend		4	Program	<u> </u>	Outside Dim	<b> -</b>	Pressure/Forced
		Centre No	ot Concer	ntric	_	BOM/Route	_	Grain		Ĺ	Over/Under	<del> </del>	Set-up
	_	Cracks			<u> </u>	Broken/Damage/Defect	$ldsymbol{ldsymbol{ldsymbol{eta}}}$	Hardwa			Part Incorred	<del> </del>	Temperature/Cure
		Crimp/Kir	nk/Ripple	/Wave	<u> </u>	Burrs		4	ion Incomplete/Un		Part Lost/Mi	ssing	Weld
		Cuffs			<u> </u>	Contamination		4	tions Incomplete/U	nclear	Part Moved	L	Wrong Stock Pulled
		Crushing			<u> </u>	Countersink	$\vdash$	1	gned/off center	<u>                                     </u>	Positioned V		<del>_</del>
	<u> </u>	Heat Trea				Cut Too Short		Mislab		L	Power Loss/	Surge	Other
	_	Inspection	•	Tube		Drawing		Misrea					
	_	Marks/Ch				Drill Holes	_	Off-set					
	<u> </u>	Turning S	•			Finish		4	Calibration			·	
		Wave/Tw	ist in Tub	oe		Fit/Function		Out of	Sequence				

Work Orde		0744		*110	744*							Page 2
Item ID: Revision ID: Item Name: Start Date:	D3535-25 Wearplate Ce. 1/07/14	<b>Start Qty:</b> 12.00	*1 <i>2</i> *	Accept	*N900		100	<b>)*</b>	Setup S	Start Stop		S1* S2*
Required Date: Reference:	1/07/14	Req'd Qty: 12.00	*12*		Customer:		<u>.</u> .		Run S	Start		
Approvals:	Process Pla	an:	Date:	Tooling:	D	ate:					*N	R1*
	QC:		Date:	<b>SPC</b> (Y/N):	D	ate:				Stop	*N	R2*
Sequence ID/ Work Center I	D	Operation Description		Set Up/ Run Hours	Tool ID	Tool#	Plan Code	Accept Qty	Rejec Qty		Reject Number	Insp. Stamp
130 *130* Brake NC		NC BRAKE		0.00		DAS 30	*	12	-			1463
Brake NC		1-Form on C	NC Brake as per Dwg D35 on Punch as per Dwg D35	35 using Jigs DT8261a		9-89						. 1
140		QC5- Inspect part comple	eteness to step on W/O	0.00 <b>27</b>				10				
*14 <b>0</b> *		Memo		0.00	aly							

150

Quality Control

0.00

\*150\* Powdercoat

Powder Coating

12 6 H-2-5. 353

DQA:			Date:			,								7	
						<b>WORK ORDER NON</b>	-CC	ONFO	RMANCE / UP	DATE					AEROSPACE
QA Closed:			Date:							•	Wo	rk Order up	date only		
Work Orde	er:					DISPOSITION				AGAINST I	DEP	ARTMENT	PROCESS		
	•					Rework	1		Skid-tube	Crosstube			Water Jet	7	Engineering
Part N	lo.					Scrap			Machining	Small Fab		Proc	d. Eng. Coor.	7	Quality
	-					Use-as-is		Therr	noforming	Finishing		Rec/Stor	e/Packaging		Other
NCR N	10.					Suspected Unapproved	]		Large Fab	Composite			Supplier		
Root					Desci	ription of work order update	l	nitial	Acti	on		Sign &			
Cause		Date	Step	Qty		or non-conformance	Ch	ief Eng	Descri	ption		Date	Verification	i	QC Inspector
Design															
Doc/Data															i
Equip/Tooling															
Handling/Pre														1	:
Material															
Operator															
Offset/Setup	$\blacksquare$										-				
Process															
Supplier	$\Box$								1						
Training		. ,													
Transport											1			1	
Unapproved		·							<u> </u>		1				
							FAI	ULI CA	TEGORY						
Landir						General		1	<b></b>	ŗ		Outside Disc	г	$\neg$ .	
	_	Bending Centre No	-t Camaan		$\vdash$	Bend BOM/Route	$\vdash$	Grain	Program		-	Outside Dim	<u>-</u>		essure/Forced
	_	Cracks	ot Concer	itric	$\vdash$	Broken/Damage/Defect	$\vdash$	1		}	_	Over/Under Part Incorred		_	et-up emperature/Cure
	_	Crimp/Kir	sk/Binnla	Mayo	-	Burrs	$\vdash$	Hardwa	ire ion Incomplete/Un	avalified		Part Incomed Part Lost/Mi	· -		'eld
		Cuffs	ik) kippie,	, wave	$\vdash$	Contamination	$\vdash$	1	tions Incomplete/U	· •	_	Part Moved	331118	-	rong Stock Pulled
		Crushing			$\vdash$	Countersink		4	gned/off center	iicicai		Positioned V	/rong	'`	TOTA STOCK Fulled
		Heat Trea	ıt		-	Cut Too Short	_	Mislab	-		-	Power Loss/:		ار	ther
]		Inspection		Tube		Drawing	$\vdash$	Misrea		Į.	لــــا	. 0110. 2033/.		10,	
	$\vdash$	Marks/Ch				Drill Holes		Off-set			-				
	$\vdash$	Turning S				Finish		4	Calibration	÷	-				
		Wave/Tw	•			Fit/Function		4	Sequence						

Work Order ID	110744
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Work Orde January-07-14				*11(	744*						Page 3
Item ID: Revision ID:	D3535-25		AND.	Accept	*N900	0040	100	)*	Setup Sta	rt *N	S1*
Item Name:	Wearplate Co	enter							Sto	<sup>p</sup> *N	S2*
Start Date:	1/07/14	<b>Start Qty:</b> 12.00	*12*		Cust Item	ID:					
Required Date:	1/07/14	<b>Req'd Qty:</b> 12.00	*12*		Customer:						
Reference:							_	]	Run Sta	ırt <b>★</b> NI	D4*
Approvals:		lan:	Date:	Tooling:	D	ate:			Sto		R1*
	QC:		Date:	<b>SPC</b> (Y/N):	D	)ate:				* *N	R2*
Sequence ID/ Work Center II	D	Operation Description		Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160		QC3- Inspect Part Finish		0.00							
*1 60* QC Quality Control		Memo		0.00					17-09	05	DAS - <del>9</del> 9-89
170		Identify as per dwg & Sto	ck Location: FPOOL	0.00				. 10	1	οιλ	1 10
*170* Packaging Packaging		Мето		0.00				110		_ [] &	(4/02/15)
180		QC21- Final Inspection -	Work Order Release	0.00						2.1	· »
*1 AO* QC Quality Control		Memo	•	0.00					<u> </u>	14.02	14-02-05
										MCS	1-1 0-

DQA:			Date:										
						<b>WORK ORDER NON-</b>	-CC	ONFO	RMANCE / UPDATE				AEROSPACE
QA Closed:			Date:							W	ork Order up	date only	
Work Orde	er:					DISPOSITION			AGAINS	ST DE	PARTMENT	/PROCESS	
	•					Rework			Skid-tube Crosstuk	оеГ	1	Water Jet	Engineering
Part I	۱o.					Scrap			Machining Small Fa		Pro	d. Eng. Coor.	Quality
	•					Use-as-is		Therr	noforming Finishir	ng 🗀	4	re/Packaging	Other
NCR I	No.					Suspected Unapproved			Large Fab Composi	te	]	Supplier	
Doct					Doss	rinting of work and an undata	Щ	nitial	Action		Cian 9		
Root		Date	Ston	O+v	Desci	ription of work order update or non-conformance	1	nitial iief Eng			Sign & Date	Verification	OC Inspector
Cause Design		Date	Step	Qty		or non-comormance	CII	Her Eng	Description		Date	verincation	QC Inspector
Doc/Data													
Equip/Tooling							ĺ						
Handling/Pre													
Material			<b> </b> ,										
Operator							1						
Offset/Setup					İ								
Process													
Supplier													
Training													
Transport							ł						
Unapproved													
							FA	ULT CA	TEGORY				·
Landi	ng (	Sear				General		•		_	_	_	_
	_	Bending				Bend		1	Program	L	Outside Dim	ensions	Pressure/Forced
		Centre No	ot Concer	ntric	<u> </u>	BOM/Route		Grain		$\vdash$	Over/Under	tolerance	Set-up
		Cracks				Broken/Damage/Defect		Hardwa		<u> </u>	Part Incorre	<u> </u>	Temperature/Cure
		Crimp/Kir	nk/Ripple	/Wave		Burrs	L	<b>1</b> '	ion Incomplete/Unqualified	<u> </u>	Part Lost/Mi	ssing	Weld
	<u> </u>	Cuffs			<u> </u>	Contamination	<u> </u>	4	tions Incomplete/Unclear	L	Part Moved	L	Wrong Stock Pulled
	<u> </u>	Crushing				Countersink		•	gned/off center	L	Positioned V	_	<b>-</b>
		Heat Trea				Cut Too Short	$\vdash$	Mislab		L	Power Loss/	Surge	Other
	$\vdash$	Inspection	-	Tube		Drawing	_	Misrea				· · · · · · · · · · · · · · · · · · ·	
	$\vdash$	Marks/Ch			<u> </u>	Drill Holes	$\vdash$	Off-set			<del></del>		
	<u> </u>	Turning S			<b> </b>	Finish	$\vdash$	-1	Calibration				
	1	Wave/Tw	ist in Tub	oe e		Fit/Function		Out of	Sequence				

January-07-14 3:02:23 PM

Work Order ID:

110744

Parent Item:

D3535-25

Parent Item Name:

Wearplate Center

**Start Date:** 1/07/14

Required Date: 1/07/14

**Start Qty: 12.00** 

Required Qty: 12.00

**Comments:** 

IPP Rev:A New Issue 07-02-15 JLM

IPP Rev:B As per Rev B 07-08-31 JLM Verified By:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M304S20GA 304/316 .040 Sheet		Purchased	No			100	sf	298.5500	0.51	6.4421052	A	R 14	.01.
				<b>Location</b>		Loc Oty	<u>Lo</u>	c Code					
				MAT020		298.55							
				m1268	852	7.75							
				m1274	454	290.8			12	7454	-	6.4	5

DQA:			Date:										_	
						WORK ORDER NON-	-CC	ONFO	RMANCE / UPDATE					AEROSPACE
QA Closed:			Date:							W	ork Order up	date only	$\perp$	
Work Orde	·r·					DISPOSITION			AGAINS	T DE	PARTMENT	/PROCESS		
Work Orac	•					Rework			Skid-tube Crosstub	_ [	1	Water Jet	$\neg$	Engineering
Part N	lo.					Scrap			Machining Small Fa		Pro	d. Eng. Coor.	1	Quality
	•					Use-as-is			noforming Finishin		1	re/Packaging		Other
NCR N	lo.			-··-		Suspected Unapproved	]		Large Fab Composit	e 🗌	]	Supplier		
_			1	- 1					· · · · · · · · · · · · · · · · · · ·		T c: o			
Root		5.1.		0.	Desc	ription of work order update	ı	nitial	Action		Sign &			0.01
Cause	$\dashv$	Date	Step	Qty		or non-conformance	Cn	ief Eng	Description		Date	Verification	+	QC Inspector
Design	$\dashv$													
Doc/Data Equip/Tooling	$\dashv$													
Handling/Pre	_													
Material														
Operator														
Offset/Setup														
Process														
Supplier														
Training		•												
Transport					ļ		1						١	
Unapproved					<u> </u>									
							FA	ULT CA	TEGORY					
Landi	_	1			_	General		,			,	_	_	
		Bending			_	Bend		4 ·	Program	_	Outside Dim		_	Pressure/Forced
		Centre No	ot Concer	ntric	<u> </u>	BOM/Route	$\vdash$	Grain		$\perp$	Over/Under		_	Set-up
		Cracks			$\vdash$	Broken/Damage/Defect	┝	Hardwa		$\vdash$	Part Incorre	<u> </u>		Temperature/Cure
		Crimp/Kir	nk/Ripple	/Wave	-	Burrs	┝	1 '	ion Incomplete/Unqualified		Part Lost/Mi	ssing	_	Weld
		Cuffs				Contamination	<u> </u>	4	tions Incomplete/Unclear	-	Part Moved	. <i>.</i>	\	Wrong Stock Pulled
,		Crushing			$\vdash$	Countersink	$\vdash$	1 '	gned/off center	-	Positioned V		٦.	Dally a se
		Heat Trea		Tuba	-	Cut Too Short		Mislabo		L	Power Loss/	ourge [	Ic	Other
		Inspectio	-	upe	-	Drawing Drill Holos	-	Misrea						
		Marks/Ch Turning S			$\vdash$	Drill Holes Finish	-	Off-set	Calibration					
	_	Wave/Tw	•		-	Fit/Function	$\vdash$	4	Sequence		-	···		
1	1	I AND ACT IN	ISCHI LUL	ر ا	L	programenton	_L_	Tour or	Jequence					

DART AEROSPACE LTD	Work Order: 110744	
Description: Wearshoe	Part Number: D3535-25	5
Inspection Dwg: D3535 Rev: B	Page 1 of	1

## FIRST ARTICLE INSPECTION CHECKLIST

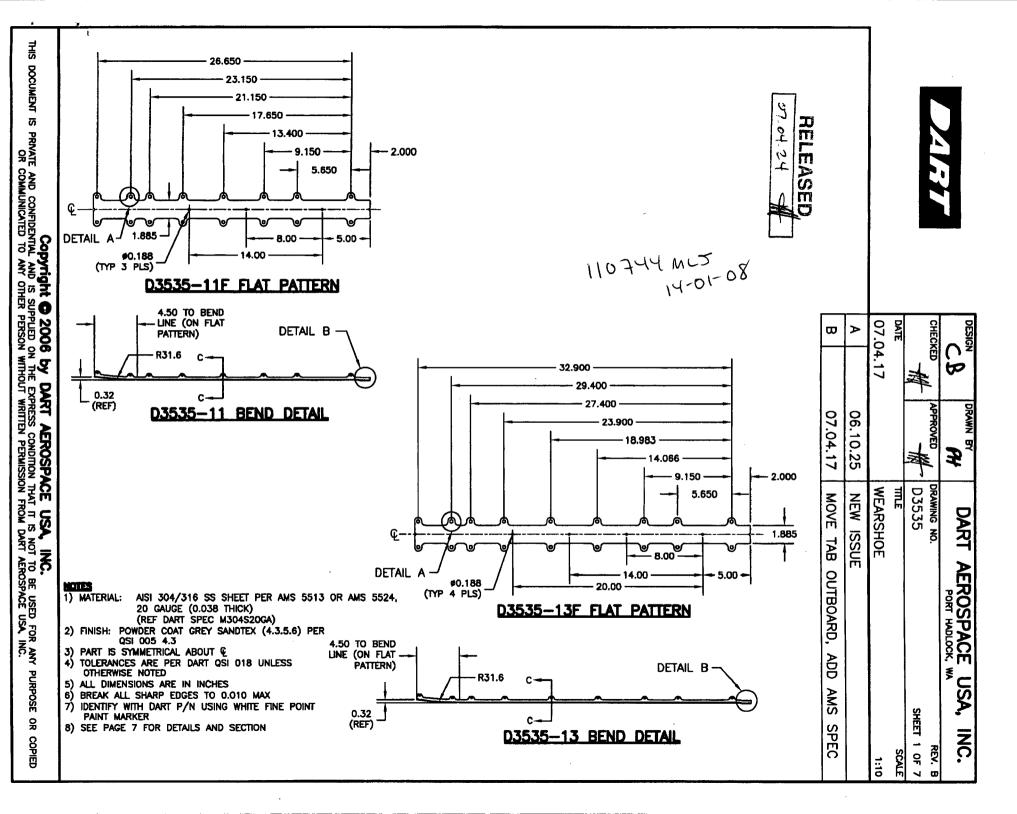
X First Article Prototype

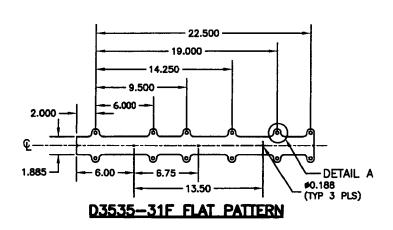
Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
1.885	+/-0.010	1.885	_		<b>V</b>	JKm-05
1.937	+/-0.010	1.937	1		<b>S</b>	
1.450	+/-0.010	1.450			<b>V</b>	
5.450	+/-0.010	5.450	_		7	JKMOB
10.900	+/-0.010	10.900	_		7	
16.350	+/-0.010	16.350	_		T	
21.800	+/-0.010	21.800	-		WT	
Ø0.188	+0.005/-0.001	,188	_		<b>V</b>	
12.750	+/-0.010	12.750	,		τ	
6.75	+/-0.030	6.75	-		T	
6.00	+/-0.030	6.00	1		Т	
0.300	+/-0.010	,301			V	
0.300	+/-0.010	, 300	-		<b>V</b>	
0.038	+/-0.010	1034	-		Y	

Measured by: Ac Audited by: 27 9-89 Prototype Approval: N/A

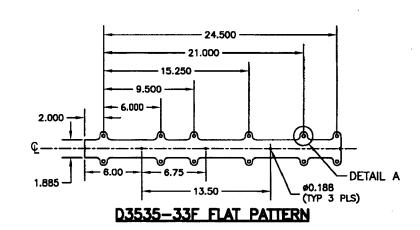
Date: 14-01-31 Date: 14113) Date: N/A

Rev	Date	Change	Revised by	Approved
Α	07.11.23	New Issue	KJ/EC/DD	
			7 ()	<b>,</b>









h2:h0:L0

RELEASE

CHECKED

b

B

DART

AEROSPACE PORT HADLOCK.

USA,

NC.

DRAWING NO. D3535

SHEET

4 OF 7

SCALE 1:10

07.04.17

WEARSHOE



- 1) MATERIAL: AISI 304/316 SS SHEET PER AMS 5513 OR AMS 5524, 20 GAUGE (0.038 THICK)
  - (REF DART SPEC M304S20GA)
- 2) FINISH: POWDER COAT GREY SANDTEX (4.3.5.6) PER
- QSI 005 4.3 3) PART IS SYMMETRICAL ABOUT &
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5) ALL DIMENSIONS ARE IN INCHES
- 6) BREAK ALL SHARP EDGES TO 0.010 MAX
- 7) IDENTIFY WITH DART P/N USING WHITE FINE POINT PAINT MARKER
- 8) SEE PAGE 7 FOR DETAILS AND SECTION

CHECKED

APPROVED

D3535 DRAWING NO.

SHEET

5 OF REV.

SCALE 1:10

B

3

DART

**AEROSPACE** 

ASU,

₹ C

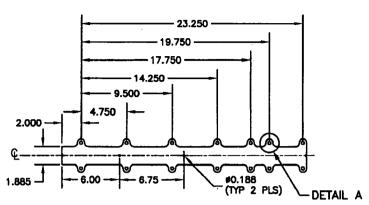
07.04.17

WEARSHOE

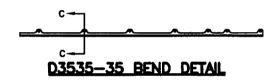
DATE

42.10.60

RELEASE



## D3535-35F FLAT PATTERN



30.750	
27.250	
22.500	
2.000	
1.885	A
D3535-37F FLAT PATTERN (TYP 4 PLS)	

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DOCUMENT

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**PURPOSE** 

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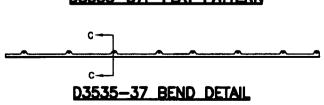
1) MATERIAL: AISI 304/316 SS SHEET PER AMS 5513 OR AMS 5524,
20 GAUGE (0.038 THICK)
(REF DART SPEC M304S20GA)
2) FINISH: POWDER COAT GREY SANDTEX (4.3.5.6) PER
QSI 005 4.3
3) PART IS SYMMETRICAL ABOUT ©

4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

5) ALL DIMENSIONS ARE IN INCHES 6) BREAK ALL SHARP EDGES TO 0.010 MAX

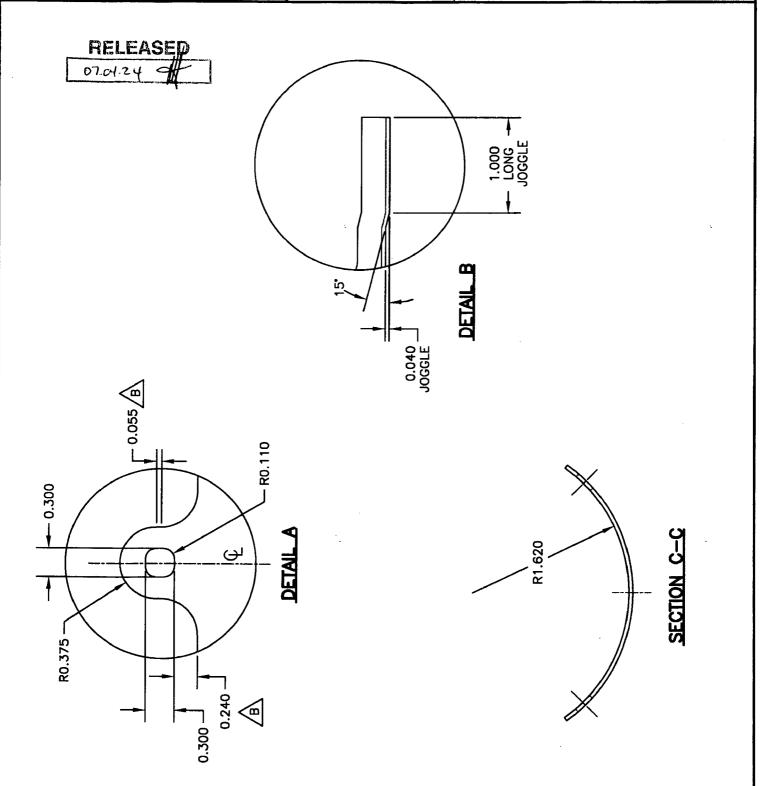
IDENTIFY WITH DART P/N USING WHITE FINE POINT PAINT MARKER

8) SEE PAGE 7 FOR DETAILS AND SECTION





DESIGN	DRAWN BY	DART	AEROSPACE USA, INC.
CHECKED **	APPROVED #/	DRAWING NO.	REV. B
		D3535	SHEET 7 OF 7
DATE		TITLE	SCALE
07.04.17		WEARSHOE	1:1



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